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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,016	12/04/2000	Ken Takashima	FUJR 17.953	6758

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New York, NY 10118

EXAMINER

PHUNKULH, BOB A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/729,016

Applicant(s)

TAKASHIMA ET AL.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: if the subject matter "processing cards" in line 8 is referring to "processing units" in lines 2-3, please correct the subject matter to --processing units--. Appropriate correction is required.

Claims 2-16 are objected to because of the following informalities: if the subject matter "processing cards" is referring to "processing units" in claim 1, please correct the subject matter to --processing units--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sudo (US 6,510,155).

Regarding claim 1, Sudo discloses a communication control apparatus comprising:

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a plurality of communication processing units each of which processes data (physical layer devices, see figure 1); and

a control unit which controls said plurality of communication processing units (the ATM layer device 1 and host controller 3, see figure 1);

said control unit comprises,

a polling unit which polls said plurality of communication processing cards in a first order which is predetermined (polling physical layer address output circuit 13, see figure 1), and

an allowing unit which allows an operation of outputting data from one of said plurality of communication processing cards when said control unit receives a response from said one of said plurality of communication processing cards (selecting physical layer address output circuit 12, see figure 1);

each of said plurality of communication processing units comprises,

a responding unit which returns to said control unit a response to polling by said polling unit when said each of said plurality of communication processing units has data to be output, and is polled by said polling unit, and

an outputting unit which performs said operation of outputting data which is allowed by said allowing unit.

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Regarding claim 2, Sudo discloses at least one control line which interconnects said control unit and said plurality of communication processing cards, and said polling unit polls each of said plurality of communication processing cards by outputting onto said at least one control line identification information identifying said each of said plurality of communication processing cards (see figure 1; col. 2 lines 39-51; and col. 3 lines 4-14).

Regarding claim 3, Sudo inherently discloses an installation detecting unit which detects whether or not each of said plurality of communication processing cards is installed, and said polling unit omits polling at least one of said plurality of communication processing cards when said installation detecting unit detects that said at least one of said plurality of communication processing cards is not installed (see figure 1).

Regarding claim 7, Sudo discloses polling unit polls another of said plurality of communication processing cards when said operation of outputting data from said one of said plurality of communication processing cards is completed, where said another of said plurality of communication processing cards is arranged at a top of said first order (polls based on the priority information, figures 5 and 6).

Regarding claim 8, Sudo discloses the polling unit polls another of said plurality of communication processing cards when said operation of outputting data from said

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one of said plurality of communication processing cards is completed, where said another of said plurality of communication processing cards follows said one of said plurality of communication processing cards in said first order (see figure 5 and 6).

Regarding claim 9, Sudo inherently discloses the polling unit successively polls one of said plurality of communication processing cards when said responding unit in said one of said plurality of communication processing cards sends to said control unit a request for allowance of successive output of data (col. 3 lines 4-14).

Regarding claim 10, Sudo discloses a memorizing unit (priority information register 11, see figure 1) which memorizes at least one response received from at least one of said plurality of communication processing cards, and said allowing unit allows an operation of outputting data from each of said at least one of said plurality of communication processing cards in a second order determined in a predetermined way, after a cycle of operations of polling all of said plurality of communication processing cards is completed (see col. 3 line 4-14).

Regarding claim 11, Sudo discloses the second order is determined according to priorities assigned to the plurality of communication processing cards (see col. 3 line 4-14).

Regarding claim 12, Sudo discloses the second order is determined based on

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information included in each of said at least one response (see col. 3 lines 4-14).

Regarding claim 13, Sudo discloses the information is determined based on importance or a type of said data to be transmitted from one of said at least one of the plurality of communication processing cards which returns said each of said at least one response (see col. 3 lines 4-14).

Regarding claim 14, Sudo discloses the information is determined based on an amount of data which is held in a data buffer provided in one of said at least one of the plurality of communication processing cards which returns said each of said at least one response (the priority is set such that the larger the transmission rate of the physical layer device, the higher the priority level of the physical layer device, see col. 3 lines 23-25).

Regarding claim 15, Sudo discloses the allowing unit allows said operation of outputting data from said one of said plurality of communication processing cards, immediately after said control unit receives said response from said one of said plurality of communication processing cards, or after a cycle of operations of polling all of said plurality of communication processing cards is completed, based on whether or not said response is a type which indicates a request for immediate allowance (*it is also possible to output the address of the physical layer device of a candidate which should execute the cell transfer, in accordance with the priority information, and to **respond to a cell***

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*transfer enable notify signal indicating that the cell transfer is possible, outputted from the physical layer device designated by the address, so as to output the address of the physical layer device that should execute the cell transfer, see col. 2 lines 39-51)*

Regarding claim 16, Sudo discloses the responding unit in each of said plurality of communication processing cards returns said type or another type of response, according to an amount of data held in a data buffer provided in said each of said plurality of communication processing cards (col. 3 lines 4-14).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo.

Regarding claim 4, Sudo fails to disclose a time measuring unit which measures an elapsed time after said allowing unit allows said operation of outputting data from said one of said plurality of communication processing cards..

Regarding claim 5, Sudo fails to disclose each of said plurality of communication processing cards further comprises an informing unit which informs said



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control unit that said operation of outputting data is completed.

Regarding claim 6, Sudo fails to disclose the polling unit polls another of said plurality of communication processing cards when a predetermined time elapses after said allowing unit allows said operation of outputting data from said one of said plurality of communication processing cards.

However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the Sudo's system to allow the selected physical layer device to transmit all data stored in the device or allow transmission of data for the a predetermined period for giving the physical layer device having a high transmission rate capable of preventing drops due to overflows in the buffer of the physical layer device.

### ***Conclusion***

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for formal communications intended for entry)

**Or:**

Hand-delivered responses should be brought to Crystal Park II, 2021

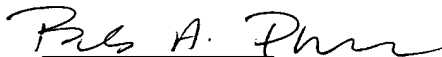
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(703) 308-8251**. The examiner can normally be reached on Monday-Friday from 8:00 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Douglas W. Olms**, can be reach on **(703) 305-4703**. The fax phone number for this group is **(703) 872-9314**.

**Bob A. Phunkulh**



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February 18, 2004